

FIG. 1

[illegible]

FIG. 2

10006611-041602

tagggaggccaacaggaagcgtgaggcatggtgtctttcctcacctgaggctaagagccttctgggtaacagtggagcct
ctgtcctccctttgtttatttaccagctggtcagagcctttgggtccaggcttctctgtcctcttctccctcatgctag
actgagactggctcagctgggtgtccccagtgagggttctagcctatccgtgttcaaggcgggtgggactataggtgc
agggacctgattcccaccctagtcacaaggcgctgtggctgtcatcagtgsggtggtttgtgccagtgtatgggtgt
taggctacctcaagcctgtagccggagcactaaggcctcgtcttatgtaaggacagccatgggtgtgggctttgggtggta
ttggccagccgtggtcacagtgcctggcaccctgatgtctgtctgcacttggccttcttttagCTGGTTCGGAAGAAACA
CCCTCTGGCTGAGGCGCTCGTACCTATCCCACCAAGCCCAGACACTAAGGACCGCTGGCGCAGTATGACTGTAGTGCCCT
ACCTGGAGGACCTGCATGGCCGTGCGGAGGAGGAGGAGGAGGAAGACTTGTGTGACATTGAGGACGGCATTATCTACACC
CAGGACTTCACAGTGCCCTGgtaagctggcttggcgagctcctactggagctgggtgactttgtgcactctggggtggtc
cccttcccaagtctccagccagctaacatgagccaccaggactgccaagccatcctggtggctgtggcatttcactctg
ggctagatgaagggtccctggctgcatctagcaggaggagggaacccctggagggcagtgsggtaggggccctgagacag
ccacctgaggggagggtccagtggccctcggtcctggccatgcctgaccttatatcgcttcttcccagggtgtcgaggag
ggggccgaggcagggttagcgaggatgcatgcgacacatgcatgtggaagagccaggggcgaggccttctggagagga
gcccaggagggggtttggggctttagtgtagctccctgtctgtgccccaccatgtcctccataaagctttgtccactg
tgtctgcaggtggatgcttgcgagacttccctcctgtcactaccctgacaggctccccaccagggtttcagagaacatg
cctgggtccaagcctgagctaggtcctcagtgccagggtggccaccagccaggggcttctggggcctttgttctgtgg
cctgcatgccagtccttagctcctggcctttcaaatagctttgggtgggagggttaaggaccttgggtactgtgtctc
ctgtagcaattgagagttctaatagcagtgcccgctgggtgccaggtggaatccacaaggacaggtatacacctgatgtc
cagtatgggccttggccacagccctttctaaggtttaaagcatccctatgtgggaatagtgtcttctactctgtcacgtg
gagcccttgtctagactgtcccacaggtgggtcctggctgagagctgggttctctgtctggggagaagatgtacttagg
tgctggttgcatagggacccttaaggctgtgtggtttgaagggaaggcaagggtctggggacactggttggccatggag
cccatttgtcaaatgggtagtgttgacagagtgaaagtaccgtgctctgaggatagcctgatccctctgtacttggca
tgagggtcggactctgcagcaacaggacaggggttctactcagtgcccttgtgtggaggaggggacagatgctttctca
gagtcacactgacctcaagcctcagtcctatgcagagtgagccagagtggtgtgtctagtgtggccaagtacaggggtt
tgggagagaaaattctggatccaggagcgtgggcagtggtgtgtgtgtgggttccacagccgcatggccaagcactggac
tgtggagttacatgtagacactgacctctggagcctgggaagcttcaggagaggccatcttttgtccactgcgaggggca
ggccaacagagcaagctggtctgcagccctcagctggatgatctccttcccggtgctcatcgagctagtagctcccagg
ccgaatgcttcactctccttgtgcctgtactgagggtctagagcctctccttggagagctctgtgagctggtgtgggt
ggccaggctagacaggcaggtgagcgtgggcatgctgcaggaggccaggccatagcactgtgaaggcagtgggcctgct
tgcccttggagctactgagggtgggtggcaccagaggttagagcacctccgaccagcctctgtcacagttggggctggc
tggggcctggggctttgagctacctgccccttggctcaagctatgcttgccatcttcccgtagGACAGGTCTTGAAGAG
GAAGTGGGTCAGAATGGACAGAGCCACAGTTTGCCCAAGGCTGTTTGTGTGAATGGCACAGAGCCCCAGCTCAGCAGCAA
GGTGAAGCCAGAAGGCCGACCTGGCACCGCCAACCTGCGCGCAAGGTGTGCTCCAGCAACAAGATCCGCCGGCTCTCGG
CCTGCAAGCAGCAGTGACTGAGGCCTACAGgtggcatgggcctgggtccagccatccctggtgttcacagtgggtgtct
gctgggtccttagctccttcccgtagggcagtgctgcaagggggaaggctctggtggttgggtggtactaagtaccacc
cattctaccaacagTGTGTCATCAGGATCTCTGGGCAGGTGTCCCTGCAAGGCTGGGTTTCCAGGCCCTGCCTGTCCACT

FIG. 3

CACTTCGGGACGTTGGAGCCGAGGGCGGACCTGCTGCCCCAGAAGCACTTTATGTCGAGACCACTGGCCGGCCTTGCCTG
CATGCCGCCCTGCGAGCCTCGCTGTCTTTGGGTTGGTTTCTTTTTTTTAATAAAACAGGTGGATTGAGCTATGGCTAT
GAGGGTGTGAAATATGGAGCAGGCGGGGCACAGGGTGGCCTGCAGAGAAAACCCAGAGCAAACAAATATGCAGAGAC
ATTTATGATTAACCAGACAACACGACCAACCACAGAGGGCGCAGGGCAGGGAGTGGGCAGGCACTCACAGCGAGTCTGCC
CTATCTTTTGGCAATAAATAAGCTTGGGAACTTG

FIG. 4

20091010-041602

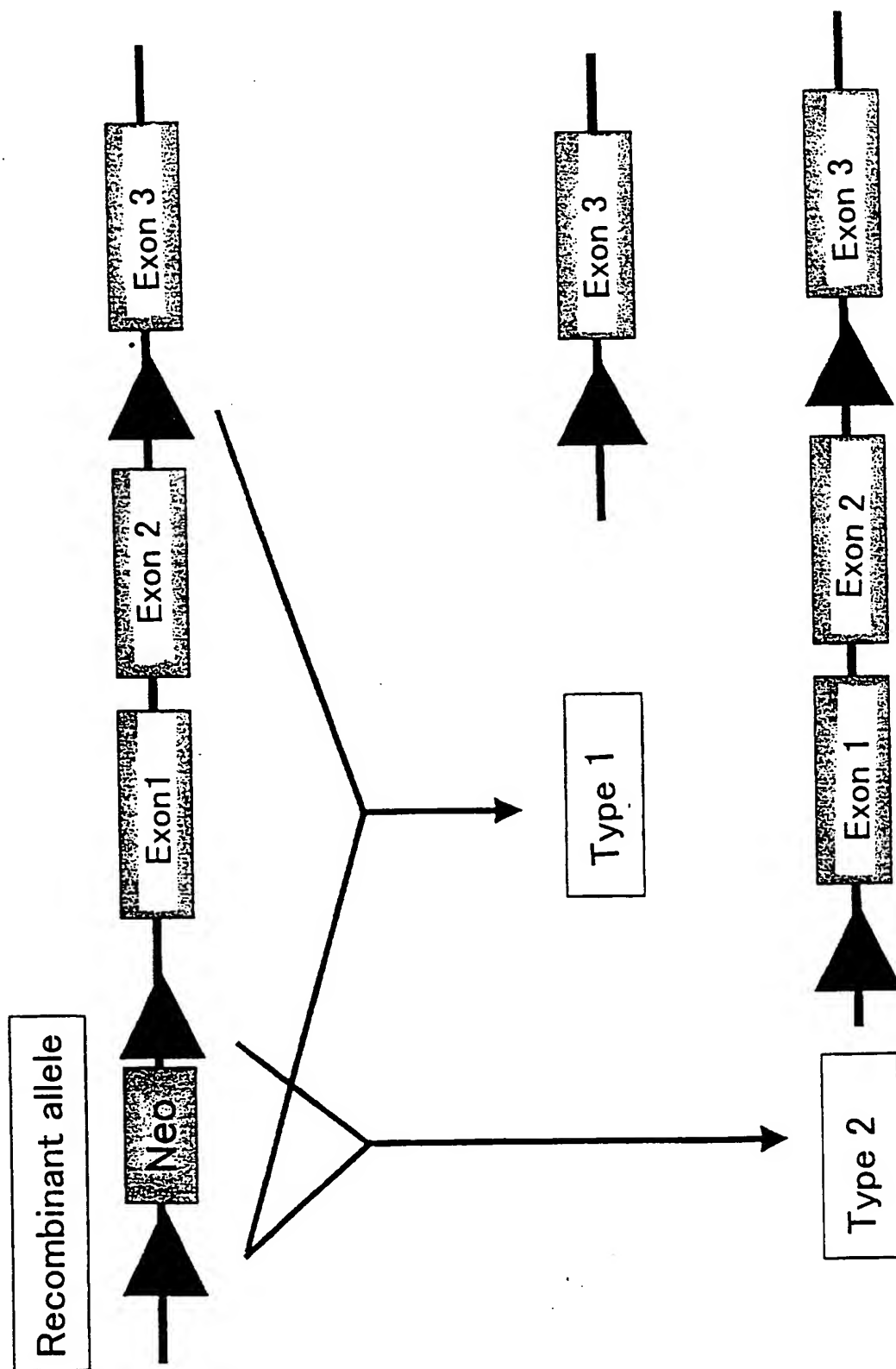


FIG. 5

loxP2 synthetic linker

3' acgtacgctgttagctatggcagctcagcttaa 5'

AvaII	Clal	XhoI	EcoRI
-------	------	------	-------

	SpeI	HindIII	loxP ->	EcoRI	BamHI	loxP ->	HindIII	XhoI
5'	ctatgaagcttc	atnaactcgtatagc	atatacattatagc	gaattatcgattgg	accgtgattgc	atatacattatagc	atatacagcttc	
3'	agttcgaagtt	attgaagc	atagctgatgtat	atgcttcaatagct	gaattcgaatct	atatacattatagc	atatacagcttc	

FIG. 6

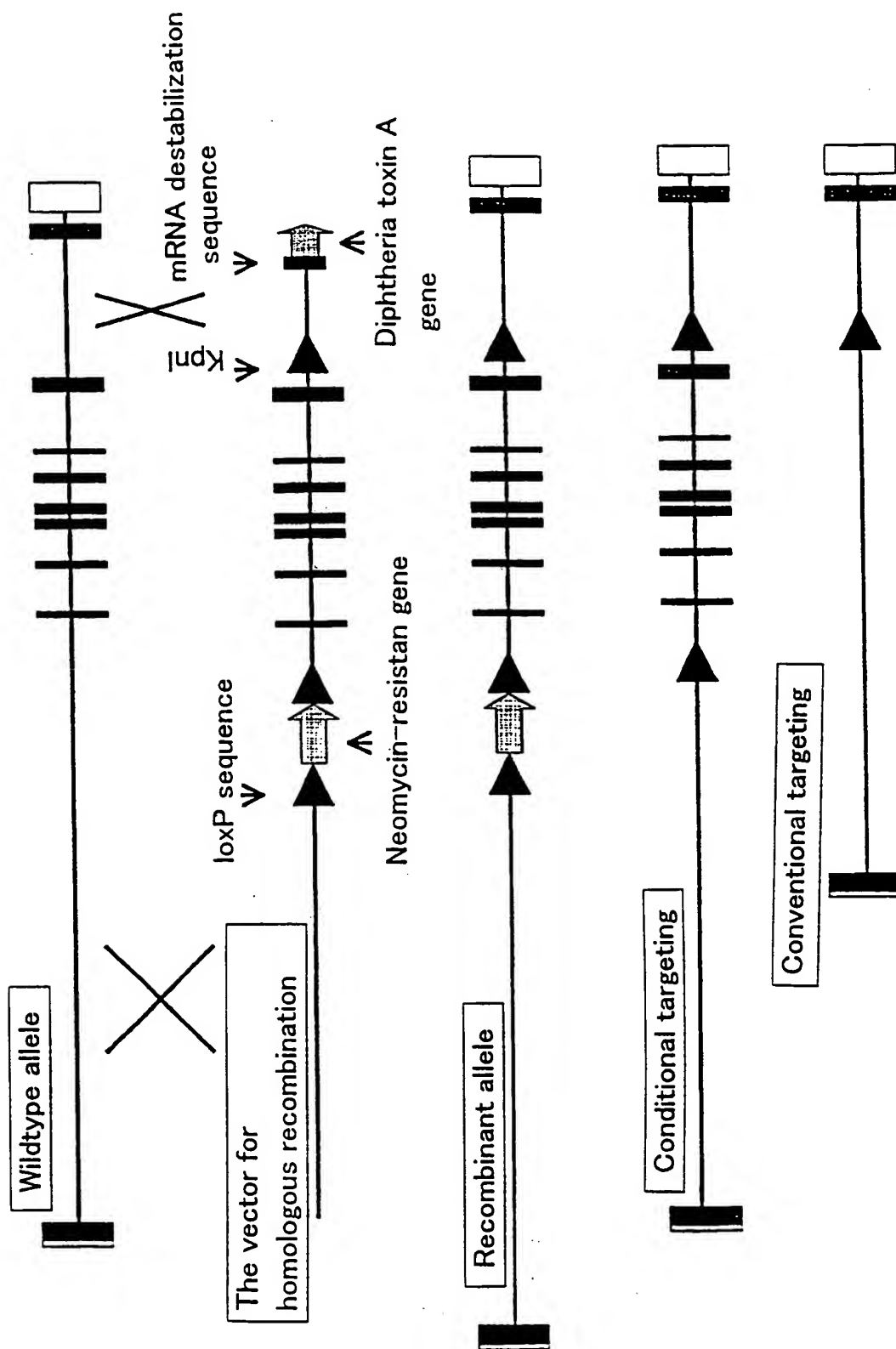


FIG. 7

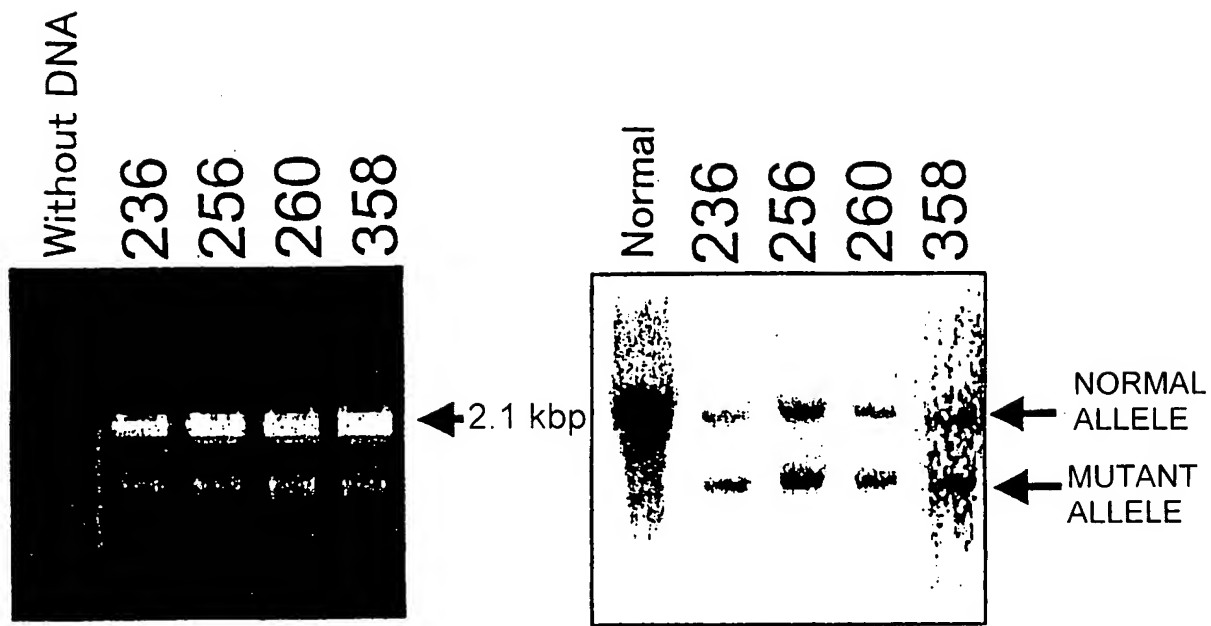


FIG. 8

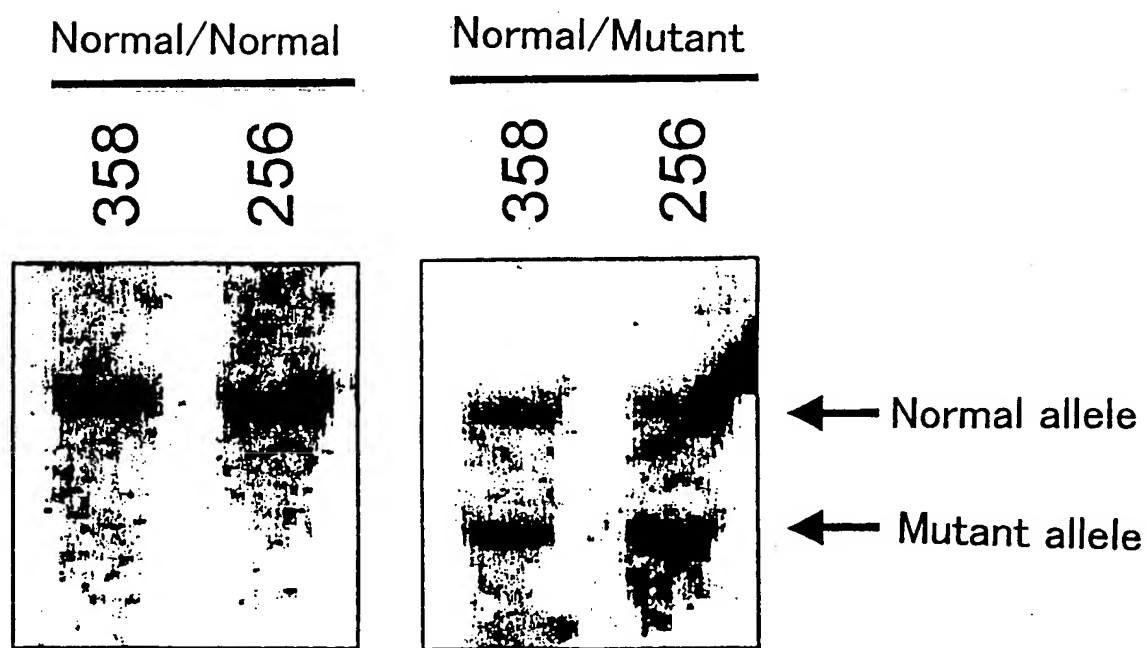


FIG. 9

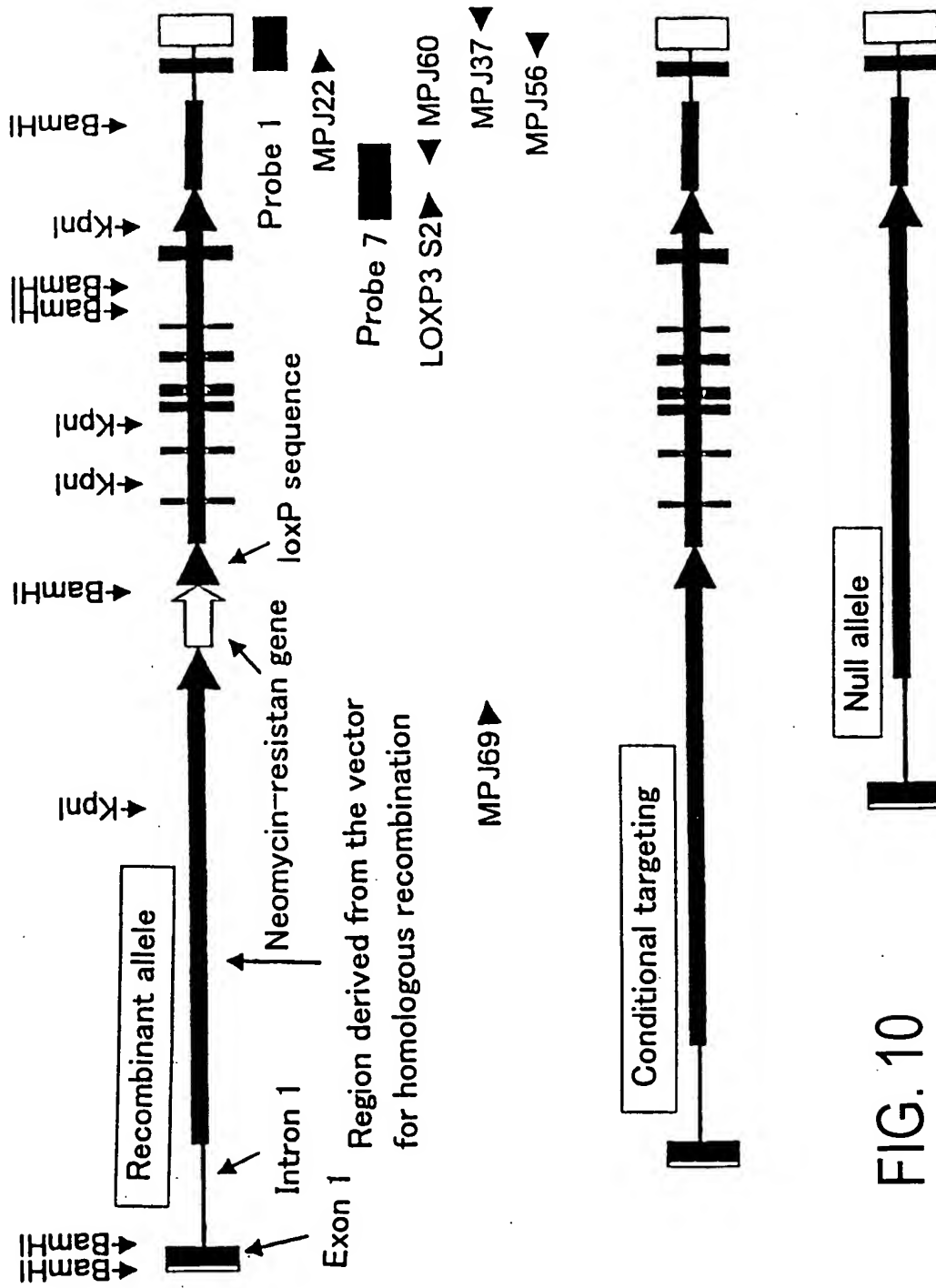
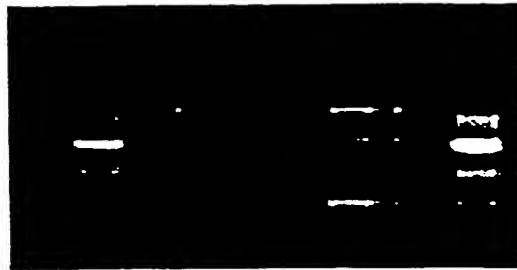


FIG. 10

O N O O O O O N



Band derived from
null allele (about 2.1 kbp)

FIG. 11A

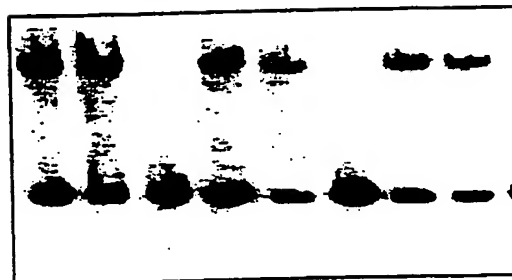
O N N O N N N O



Band derived from
null allele (about 1.2 kbp)

FIG. 11B

N N W N N W N N



Band derived from
null allele

Band derived from
wildtype allele

FIG. 11C

10006611-041602